

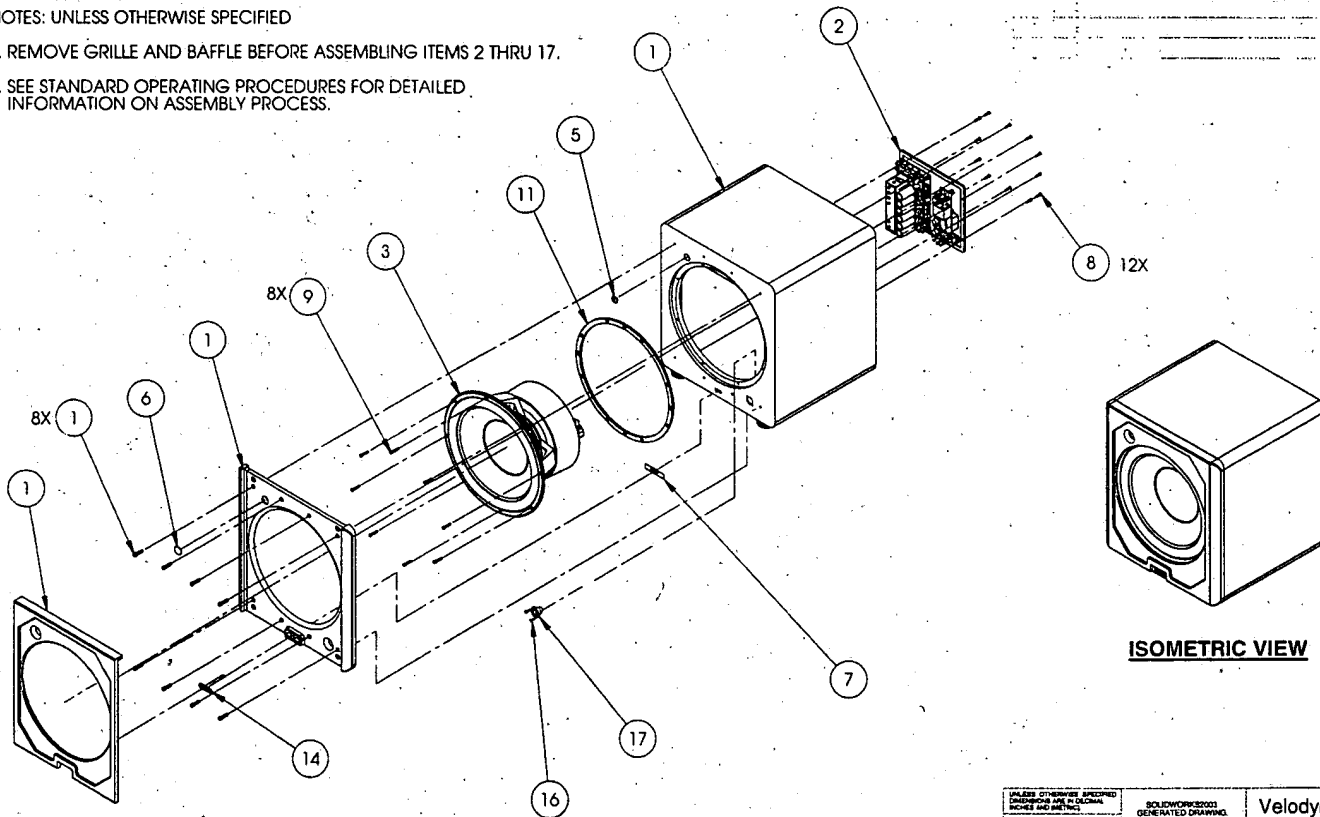
APPENDIX A

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF
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NOTES: UNLESS OTHERWISE SPECIFIED

1. REMOVE GRILLE AND BAFFLE BEFORE ASSEMBLING ITEMS 2 THRU 17.
2. SEE STANDARD OPERATING PROCEDURES FOR DETAILED INFORMATION ON ASSEMBLY PROCESS.

EDN REV DESCRIPTION APPROVAL DATE
 A PRODUCTION RELEASE CMK 06/13/03



ISOMETRIC VIEW

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMALS ANGLES .001 .010 ± 0.5°		SOLIDWORKS 2003 GENERATED DRAWING DO NOT MANUALLY UPDATE		Velodyne Acoustics, Inc.	
TOP LEVEL	SEE NOTES	APPROVALS	DATE	ASSY, DD-15 AMP/DRIVER BLACK, 117V	
	SEE NOTES	CMK	06/13/03		
	SEE NOTES	CMK	06/13/03		
NEXT ASSY	DO NOT SCALE DRAWING	CMK	06/13/03	80-DD15BG	SHEET 1 OF 1

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3 FROM ACCELEROMETER TO J25
(DRIVER NOT SHOWN)

3 CABLE FROM DRIVER GROUND

12 CABLE FROM REMOTE EYE TO 9
(PLACE UNDER BATTING)

TO J3 ON DSP BOARD

TO J9 ON DSP BOARD

TO GROUND LUG ON AMPLIFIER

TO J21 ON DSP BOARD

J8
J-TAG INPUT

PLACE IN J9 TOP 3 PINS OF CONN
FROM REMOTE EYE

DETAIL A

TO J2/J5 ON AMP MOTHER BOARD

1 BATTING

3 FROM SPEAKER WIRE
(DRIVER NOT SHOWN)
RED TO J2 MOTHER BOARD
BLK TO J5 MOTHER BOARD

13 CABLE FROM LOGO BADGE TO J3
(PLACE UNDER BATTING)

17 CABLE FROM XLR MICROPHONE TO J21
(PLACE UNDER BATTING)

Velodyne Acoustics, Inc.

ASSY,DD-15
AMP/DRIVER
BLACK,117V

80-DD15BG

SOLIDWORKS2001
GENERATED DRAWING
DO NOT MANUALLY UPDATE

B

SCALE

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AMP, DD SERIES
117V 60HZ

89-0071

REV A

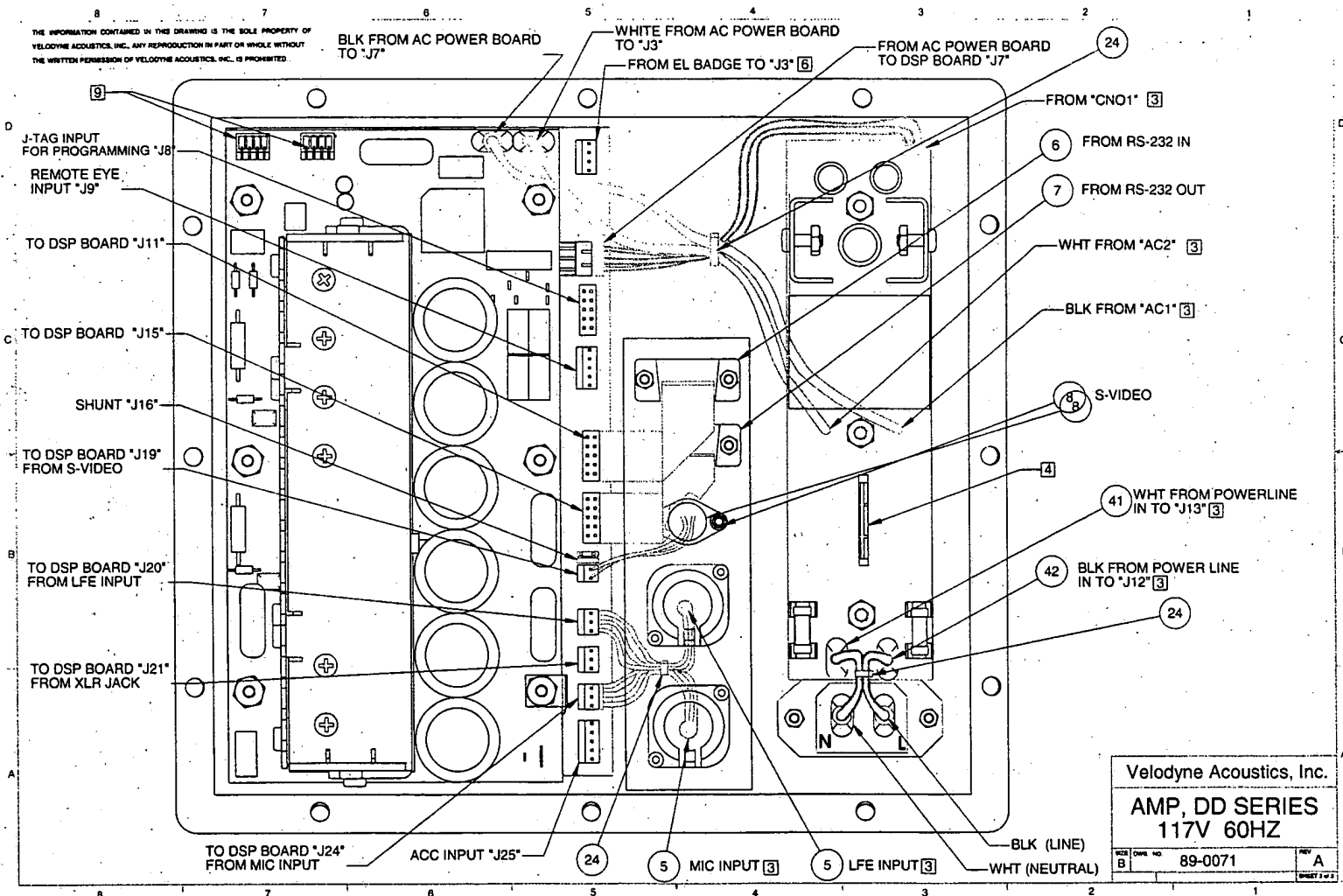
PHASE 1

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BLK FROM AC POWER BOARD TO "J7"

WHITE FROM AC POWER BOARD TO "J3"
FROM EL BADGE TO "J3" [6]

FROM AC POWER BOARD TO DSP BOARD "J7"



Velodyne Acoustics, Inc.

AMP, DD SERIES
117V 60HZ

REV	DATE	NO	89-0071	REV	A
8					

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NOTES: UNLESS OTHERWISE SPECIFIED

1. THRU-HOLE COMPONENT LEADS MUST SHOW THROUGH SOLDER SIDE OF BOARD.
2. THRU-HOLE COMPONENT LEADS MUST BE TRIMMED TO .063" (1.6mm) OR "IPC-610" REQUIREMENT.
3. THRU-HOLE COMPONENT LEADS MUST EXHIBIT GOOD SOLDER FLOW ON BOTH SIDES OF THE BOARD. NO SOLDER VOIDS, PINHOLES OR COLD SOLDER JOINTS.
4. SOLDER MUST BE SMOOTH, SHINY WITH EVEN WETTING AND EXHIBIT NO COLD SOLDER JOINTS.
5. BOTH SIDES OF BOARD MUST BE CLEAN AND FREE OF ANY FLUX RESIDUE.

6. SEE BILL OF MATERIALS FOR REFERENCE PART NUMBER
7. TERMINALS "J12 & J13" ARE TO BE INSTALLED PERPENDICULAR TO THE BOARD.

8. INSTALL, SOLDER AND CLEAN THE FOUR FASTON TERMINAL CONNECTORS (ITEM 9) AT "SW1" AS SHOWN. NOTE: THE PCB CONNECTORS MUST BE MOUNTED PERPENDICULAR ON THE PCB SOLDER SIDE SURFACE.

9. INSTALL JUMPERS (ITEM 21) AT "JP1, JP2 (-1 = 117V) OR JP3 (-2 = 230V)" PER OPTION TABLE BELOW.

10. BEND OR TWIST PINS ON HEATSINKS (ITEM 18) TO SECURE TO PC BOARD (6 PLACES).

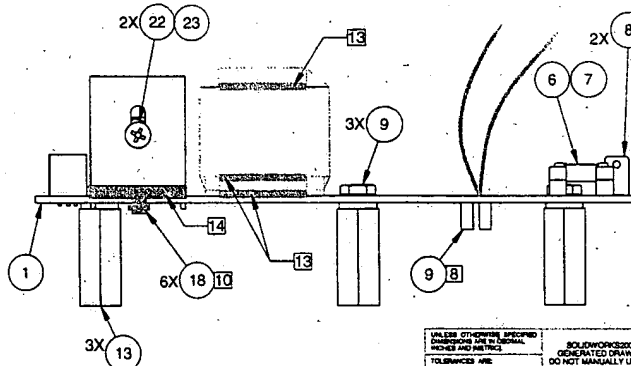
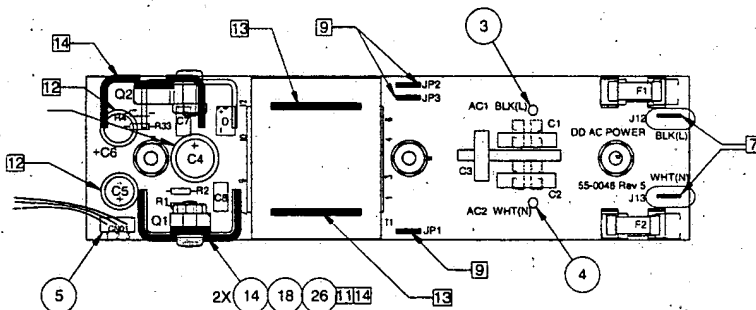
11. APPLY SMALL AMOUNT HEATSINK COMPOUND (ITEM 26) BETWEEN REGULATOR (ITEM 14) AND HEATSINK (ITEM 18).

12. ADD RTV ADHESIVE (ITEM 0012) AT THE BASE OF CAPACITORS "C4, C5 & C6" TO SECURE-IN-PLACE TO PREVENT VIBRATION.

13. APPLY A 1" LONG BEAD OF ECOBOND (ITEM 26) OR APPROVED EQUIVALENT, ON THE EACH END OF THE TRANSFORMER IN THREE PLACES.

14. APPLY A CONTINUOUS BEAD OF ECO BOND (ITEM 26), OR APPROVED EQUIVALENT, AROUND THE BASE OF EACH HEATSINK (ITEM 18).

ECN	REV	DESCRIPTION	APPROVAL	DATE
1109	A	PRODUCTION RELEASE	WHK	06/10/03
	B	AMEND NOTE 13, ADD NOTE 14	WHK	07/24/03



9. VOLTAGE OPTION TABLE			
-1	DD Series 117V	JP1	---
-2	DD Series 230V	JP3	---
-3	1812 117V	JP1	---
-4	1812 230V	JP2	---

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN DECIMALS AND FRACTIONS TOLERANCES ARE: DECIMALS .005 FRACTIONS 1/16		SOLUTIONS/32003 GENERATED DRAWING DO NOT MANUALLY UPDATE		Velodyne Acoustics, Inc.	
APPROVALS		DATE		ASSY, DSP AC POWER PCB	
JCC 07/23/03		WHK 07/24/03		84-0046-X	
MD 07/24/03		WHK 07/24/03		B	
NEXT ASSY		DO NOT SCALE DRAWING		SHEET 1 OF 1	

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NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL COMPONENT LEADS MUST SHOW THROUGH SOLDER SIDE OF BOARD.

2. ALL COMPONENT LEADS MUST BE TRIMMED TO .063" [1.60] MAX.

3. ALL COMPONENTS LEADS MUST SHOW GOOD SOLDER FLOW ON BOTH SIDE OF THE PCB. NO SOLDER VOIDS OR PIN HOLES.

4. SOLDER MUST BE SMOOTH AND SHINY WITH EVEN WETTING. (NOTE: COLD SOLDER JOINTS ARE CAUSE FOR REJECTION).

5. BOTH SIDES OF BOARD SHALL BE CLEAN AND FREE OF ANY DEBRIS OR RESIDUE

6. ALL DIMENSIONS ARE IN DECIMAL INCHES AND (MILLIMETERS):

7. SEE BOM FOR LIST OF PART NUMBERS.

8. COMPONENT "R3,R4" SHALL BE SPACED .10" [2.54] FROM THE PCB SURFACE.

9. COMPONENT "CR1" SHALL BE SPACED .25" [6.35] FROM THE PCB SURFACE.

10. APPLY A SMALL AMOUNT OF RTV ADHESIVE (P/N 49-0007) TO SECURE CAPACITORS C3,C4,C5,C7,C8,C9,C10,C11,C12 TO PREVENT VIBRATION NOISE; ALSO APPLY A SMALL BEAD ACROSS THE WINDINGS AND BASE OF L1,L2,L3,L4 TO PREVENT VIBRATION. NOTE: ENSURE THAT INDUCTORS L1,L2,L3,L4 ARE MOUNTED FLUSH AND PERPENDICULAR TO THE PCB SURFACE. (SEE DETAIL A).

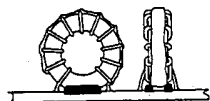
11. APPLY INSULATOR (P/N 48-036) ONTO COMPONENT SIDE AT "SH 1" LOCATION.

12. INSTALL JUMPERS FOR 117V (-1) & 2530V (-2) VOLTAGES PER "JUMPER TABLE".

13. CAPACITORS C3,C4,C5,C6,C13,C18,C21,C22 TO BE MOUNTED WITH AN EXPOSED LEAD LENGTH NOT TO EXCEED .1" (2.54mm) FROM THE PCB SURFACE. (SEE DETAIL "B").

14. INSTALL AND SHRINK A 1" LENGTH OF SHRINK TUBING (P/N 53-113) OVER "L4" AFTER ADHESIVE HAS CURED.

INDUCTOR CORE MUST BE FLUSH AND PERPENDICULAR TO THE PCB SURFACE.



10 DETAIL "A" (L1 thru L4)
(APPLY ADHESIVE AS SHOWN)

EXPOSED LEAD LENGTH

.1" [2.54]

13 DETAIL "B"

JUMPER TABLE

J4	J1
J4	J6
J4	J1
J4	J6

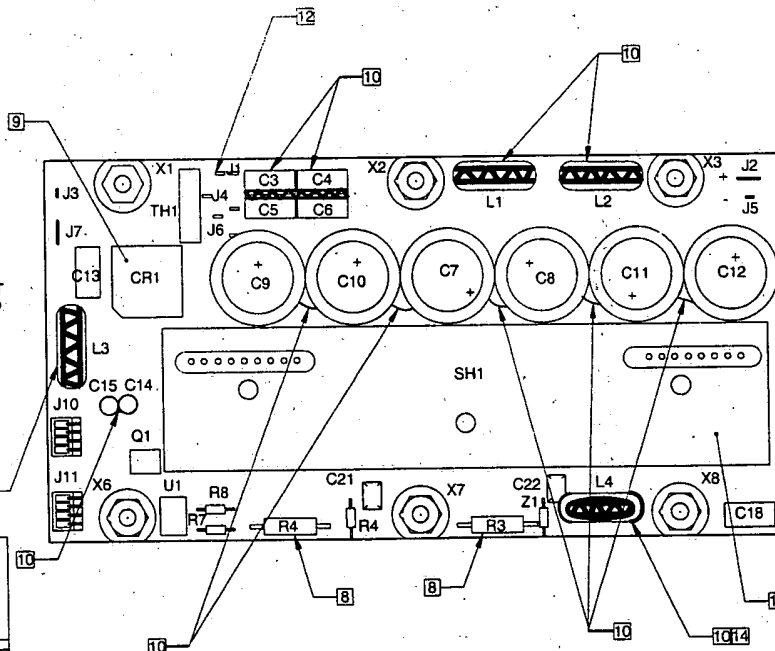
OPTION TABLE

-1	117V
-2	230V

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN DECIMAL INCHES AND (MILLIMETERS)
TOLERANCES ARE:
DECIMALS ANGLES
.001 ± .003 ± 0.5°
FRACTIONS ± .015
MATERIAL SEE NOTES
FINISH SEE NOTES
DO NOT SCALE DRAWING

SOLIDWORKS 2003
GENERATED DRAWING
DO NOT MANUALLY UPDATE
APPROVALS DATE
JCC 07/24/03
MD 07/24/03
WHK 07/24/03

Velodyne Acoustics, Inc.
PCBA, DSP 1250W
AMPLIFIER MOTHER
117V/230V
REV A
84-0044-X
SHEET 1 OF 1

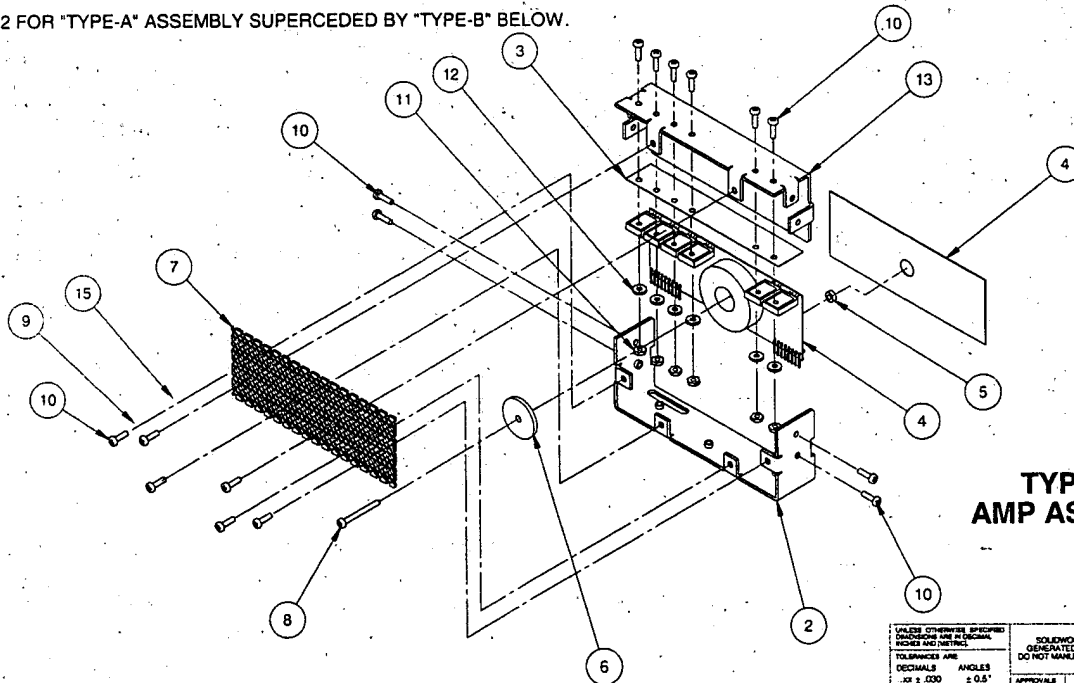


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NOTE: UNLESS OTHERWISE SPECIFIED

1. ALL DIMENSIONS ARE IN DECIMAL INCHES AND [MILLIMETERS].
2. APPLY THREAD LOCKING COMPOUND #242 (ITEM 0014) TO ALL SCREW
THREADS DURING INSTALLATION.
3. REFER TO SOP# 55 FOR ADDITIONAL ASSEMBLY INSTRUCTIONS.
4. SEE SHEET 2 FOR "TYPE-A" ASSEMBLY SUPERCEDED BY "TYPE-B" BELOW.

ECN	REV	DESCRIPTION	APPROVAL	DATE
	A	PRODUCTION RELEASE	WHK	01/14/00
882	B	DEL COVER SCREWS AND WASHERS	WHK	06/08/00
1052	C	AMEND NOTE 3 FOR RTV APPLICATION	WHK	07/29/02
1064	D	CHG HEAT SINK TO NEW DESIGN	WHK	02/03/03



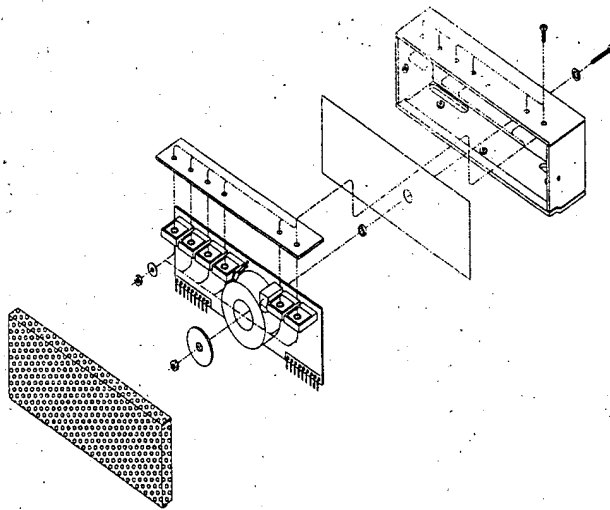
TYPE-B AMP ASSEMBLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN DECIMAL INCHES AND [MILLIMETERS]		SOLIDWORKS 2001 GENERATED DRAWING DO NOT MANUALLY UPDATE		Velodyne Acoustics, Inc.	
TOLERANCES ARE	ANGLES	APPROVAL	DATE	ASSY, 1250W AMP MODULE W/HEATSINK (TYPE-A / TYPE-B)	
DECIMALS	± 0.5°	WHK	01/24/02		
± 0.010		MD	02/03/03	84-0033-1	D
MATERIAL	SEE NOTES	WHK	02/03/03	SCALE: N/A	SHEET 1 OF 1
FINISH	SEE NOTES				
NEXT ASSY	DO NOT SCALE DRAWING				

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NOTE: UNLESS OTHERWISE SPECIFIED
1. SEE SHEET 1 FOR 'TYPE-B' ASSEMBLY.

2. REFER TO SOP# 55 FOR ASSEMBLY INSTRUCTIONS



**TYPE-A
AMP ASSEMBLY**

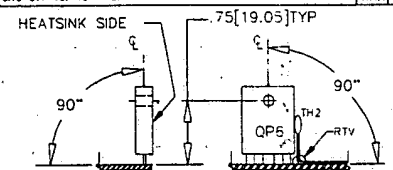
Velodyne Acoustics, Inc.
ASSY, 1250W AMP
MODULE W/HEATSINK
(TYPE-A / TYPE-B)

SOLIDWORKS2001+ GENERATED DRAWING. DO NOT MANUALLY UPDATE	SIZE B	DWG NO 84-0033-1	REV D
DO NOT SCALE DRAWING	SCALE		SHEET 2 of 3

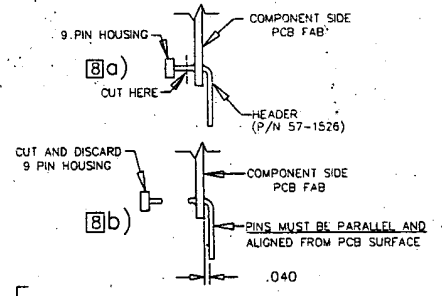
NOTES: UNLESS OTHERWISE SPECIFIED:

1. ALL COMPONENT LEADS MUST SHOW THROUGH SOLDER SIDE OF BOARD.
2. ALL COMPONENT LEADS MUST BE TRIMMED TO .063" (1.580) MAX.
3. ALL COMPONENT LEADS MUST SHOW GOOD SOLDER FLOW ON BOTH SIDE OF THE PCB NO SOLDER VOIDS OR PIN HOLES.
4. SOLDER MUST BE SMOOTH AND SHINY WITH EVEN WETTING. (NOTE: COLD SOLDER JOINTS ARE CAUSE FOR REJECTION)
5. BOTH SIDES OF BOARD SHALL BE CLEAN AND FREE OF DEBRIS.
6. DIMENSIONS ARE IN DECIMAL INCHES AND (METRIC).
7. SEE BILL OF MATERIALS FOR REFERENCE NUMBERS.
8. a) PUSH THE PLASTIC HOUSING TO THE END OF PINS, INSERT HEADER (P/N 57-1526) AT "J9" & "J10" FROM SOLDER SIDE AND SOLDER IN PLACE.
b) TOUCH-UP AND CUT THE SOLDER SIDE PINS PER NOTE 2.
9. COMPONENTS "QP2, QP3, QP4, QP6" MUST BE MOUNTED .75" (19.05) FROM THE CENTER OF THE FET MOUNT SCREW HOLE TO THE PCB SURFACE. NOTE: THE FET MUST BE MOUNTED PERPENDICULAR FROM THE PCB SURFACE (SEE VIEW "A").
10. CONNECT, SOLDER AND CLEAN SECONDARY LEAD FROM INSIDE-OVER-TOP AT "X4" LOCATION SHOWN. (NEAR SIDE IS TOP OF COIL)
11. INSTALL SOLDER AND CLEAN BUS JUMPER (P/N 53-018BUS) AT "R54" LOCATION.
12. INSTALL THE INDUCTOR INSULATOR (P/N 48-044) AT "L1" LOCATION CENTERED ON THE MOUNT HOLE SCREW LOCATION PRIOR TO INSTALLING INDUCTOR "L1". AS-CLOSE-AS-POSSIBLE, ON THE COMPONENT SIDE.
13. CAPACITOR "C1" SHALL NOT BE MOUNTED OR EXTEND BEYOND THE HORIZONTAL MOUNT ALIGNMENT OF "QP2-QP4 & QP6".
14. THRU-HOLE COMPONENTS "C2, C3, C38 & C39" SHALL HAVE A MAX OF .078" (2.01) SPACING BETWEEN THE PCB SURFACE AND THE COMPONENT BOTTOM SURFACE. EXCEPT WHEN THE COMPONENT MATERIAL, ON THE LEADS, PROTRUDE INTO THE SOLDER PAD.
15. THE THERMISTOR "TH2" LEADS SHALL BE LONG ENOUGH, COVERED WITH 24AWG TEFLON (P/N 53-0001), TO LAY FLAT AGAINST "QP6" AND SECURED IN-PLACE WITH A SMALL AMOUNT OF RTV 108 (P/N 49-0007) OR APPROVED EQUIVALENT, AT THE BEND IN THE LEADS OF "TH2" (SEE VIEW "A").
16. GRIND FLUSH, TO THE PCB EDGE, THE 5 NODES FROM "PANELIZATION" FOR INSULATOR CLEARANCE AT NEXT HIGH-TEMP ASSEMBLY, IF APPLICABLE.
17. SECURE COMPONENTS "C5 & L3" TO "CB" WITH RTV (P/N 49-0007) OR APPROVED EQUIVALENT.
18. SECURE COMPONENTS "C1, C3, C4, C10, C12, C15, C17, C23, C33, C38, C39, D13, D25, L6 & R22" WITH RTV (P/N 49-0007) OR APPROVED EQUIVALENT, AS SHOWN.

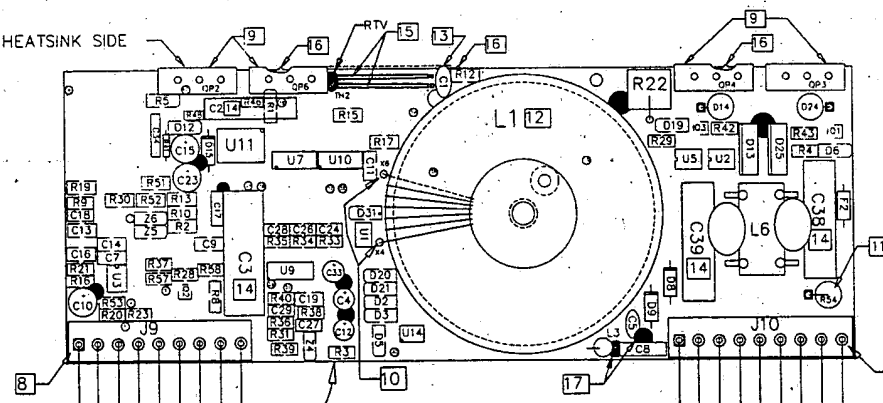
REV	REV	DESCRIPTION	DATE
A		PRODUCTION RELEASE	WHK 01/12/00
B59		CHG "C18" & CHG QTY P/N 30-4148SU	WHK 02/28/00
B62		AMEND NOTE 8, ADD NOTES 13, 14 & 15, CHG "L1"	WHK 03/24/00
B80		ADD NOTE 16, "TH2" RTV AND "L1" INSULATOR	WHK 06/08/00
944		CHG R1 & R5 TO: 10 OHM 1208	WHK 03/22/01
982		CHG C5, ADD NOTES 17 & 18	WHK 08/16/01
1001		CHG C11&C16, ADD C7	JR 12/17/01
1036		CHG C5, L1 & R58, CHG NOTE 10, ADD NOTE 19	CMK 05/06/02
1038		ADD MOD CIRCUIT (REV B PCB FAB)	WHK 05/17/02
1050		CHG C17 To: 10-1100	WHK 07/19/02
1053		CHG C17 To: 18-470MV	WHK 08/01/02



VIEW "A" (915)
"QP2, QP3, QP4, QP6 & TH2" MOUNT ORIENTATION



HEADER INSTALLATION SIDE VIEW



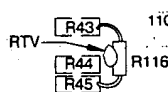
90° TYP (18 PLACES) MUST BE SPACED EVENLY AND PERPENDICULAR FROM THE PCB EDGE.

<p>84-0037</p> <p>SEE BOM</p> <p>N/A</p>		<p>DATE: 08/01/02</p> <p>BY: JCC</p> <p>REV: 08/01/02</p> <p>MD</p> <p>WHK</p>	<p>Velodyne Acoustics Inc.</p> <p>PCBA, 600W AMP MODULE ASSY</p> <p>84-0035</p> <p>SCALE: NTS</p> <p>SHEET 1 OF 1</p>
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NOTE: Assembly notes listed below are for Revision "7" PCB fab.

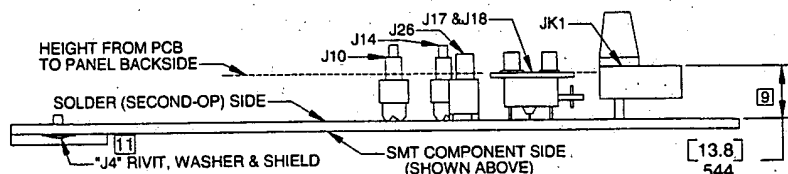
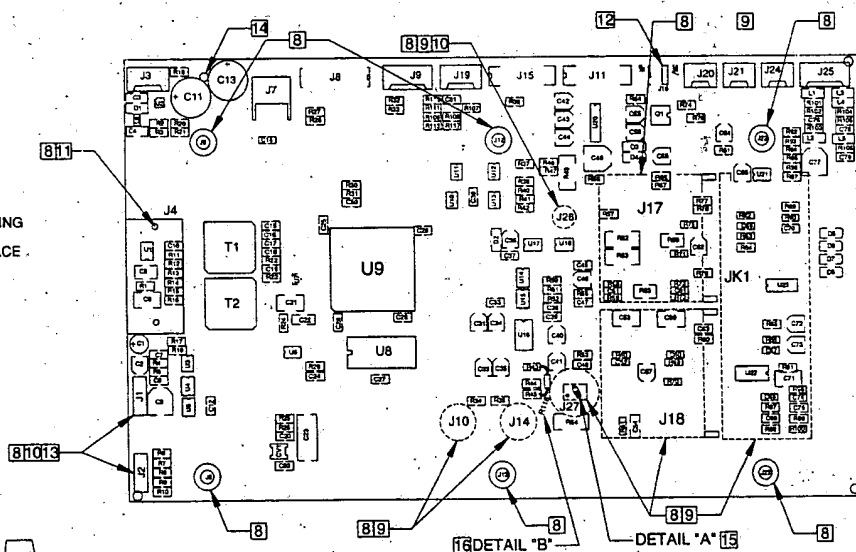
-

DETAIL "A" 15



DETAIL "B" 1416

Reference: PCB FAB Rev 7

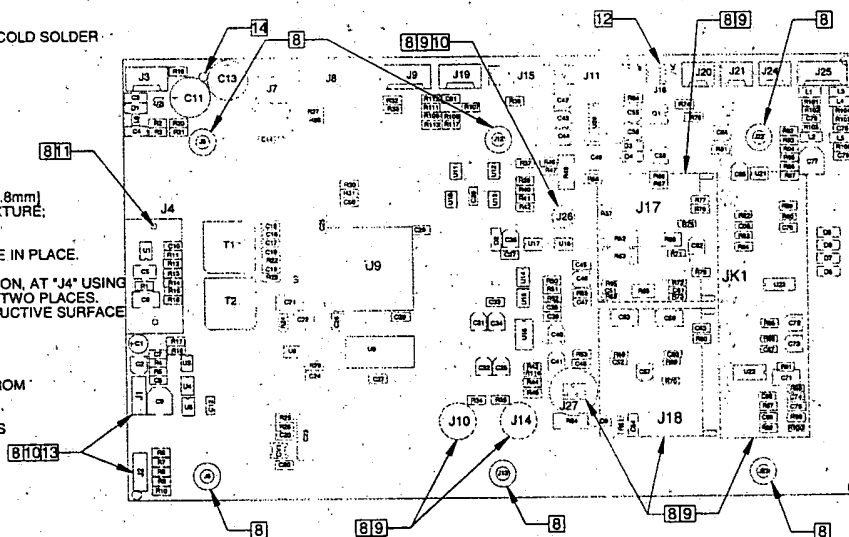


SALES COUNTRIES, SPECIFIC COUNTRIES, SPECIFIC COUNTRIES AND METERS		SULZOWORKS0000 GENERATED DRAWINGS DO NOT MANUALLY UPDATE		Velodyne Acoustics, Inc.	
TOLERANCES ARE DECIMALS ANGLES .000 1.0° .000 5.0°		APPROVALS DATE JCC 06/18/03 WHK 06/23/03 MD 06/23/03 WHK 06/23/03		PCBA, DSP CONTROLLER	
69-0071	SEE NOTES	B1 84-0045-1		B	
69-0072	SEE NOTES	B2 84-0045-1		B	
NEXT ASSY		DO NOT SCALE DRAWING		84-0045-1 84-0045-1	

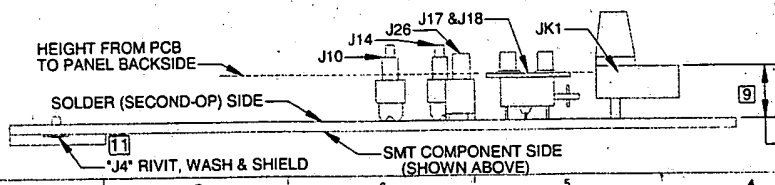
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NOTE: Assembly notes listed below are for Revision "A" PCB fab.

1. ALL DIMENSIONS ARE IN DECIMAL INCHES AND [MILLIMETERS].
2. ALL COMPONENT LEADS MUST SHOW THROUGH SOLDER SIDE OF BOARD.
3. ALL COMPONENT LEADS MUST BE TRIMMED TO .063" [1.6mm] MAX.
4. ALL COMPONENTS LEADS MUST SHOW GOOD SOLDER FLOW ON BOTH SIDE OF THE PCB. NO SOLDER VOIDS OR PIN HOLES. FILL ALL VIAS TO PREVENT MOUNTED PCBA FROM AIR LEAKS.
5. SOLDER MUST BE SMOOTH AND SHINY WITH EVEN WETTING. (NOTE: COLD SOLDER JOINTS ARE CAUSE FOR REJECTION).
6. BOTH SIDES OF BOARD SHALL BE CLEAN AND FREE OF DEBRIS.
7. SEE BILL OF MATERIALS FOR REFERENCE PARTS NUMBERS.
8. SECOND-OP COMPONENTS: MASK MOUNT HOLES *J4(X2), J5, J6, J12, J13, J22, J23* AND COMPONENT HOLES *J1, J2, J10, J14, J17, J18, J26, J27, JK1* PRIOR TO WAVE SOLDER.
9. SOLDER SIDE COMPONENTS: MOUNT *J17, J18 & JK1* SPACED .544" [13.8mm] FROM THE PCB SURFACE, USING A VELODYNE APPROVED MOUNT FIXTURE; MOUNT COMPONENTS *J10, J14, J26 & J27* FLUSH TO PCB SURFACE.
10. APPLY EPOXY (P/N 49-0017) AT THE BASE OF *J1, J2 & J26* TO SECURE IN PLACE.
11. INSTALL SHIELD (P/N 48-068) ON COMPONENT SIDE, AFTER INSPECTION, AT *J4* USING RIVIT (P/N 44-028125) AND EXTERNAL TOOTH WASHER (P/N 43-040S) TWO PLACES. NOTE: NON-CONDUCTIVE SURFACE TOWARD PCB. ALUMINUM CONDUCTIVE SURFACE SHALL NOT TOUCH TRACES OR COMPONENTS.
12. INSTALL SHUNT (P/N 57-527) AT *MC* LOCATION SHOWN.
13. INSTALL PROTECTIVE FOAM OVER PINS AT *J1 & J2* TO PROTECT FROM DAMAGE DURING SHIPPING.
14. APPLY A SMALL BEAD OF RTV (P/N 49-0007) TO SECURE CAPACITORS *C11 & C13* FROM VIBRATION.



Reference: PCB FAB Rev A



Velodyne Acoustics, Inc.
PCBA, DSP
CONTROLLER

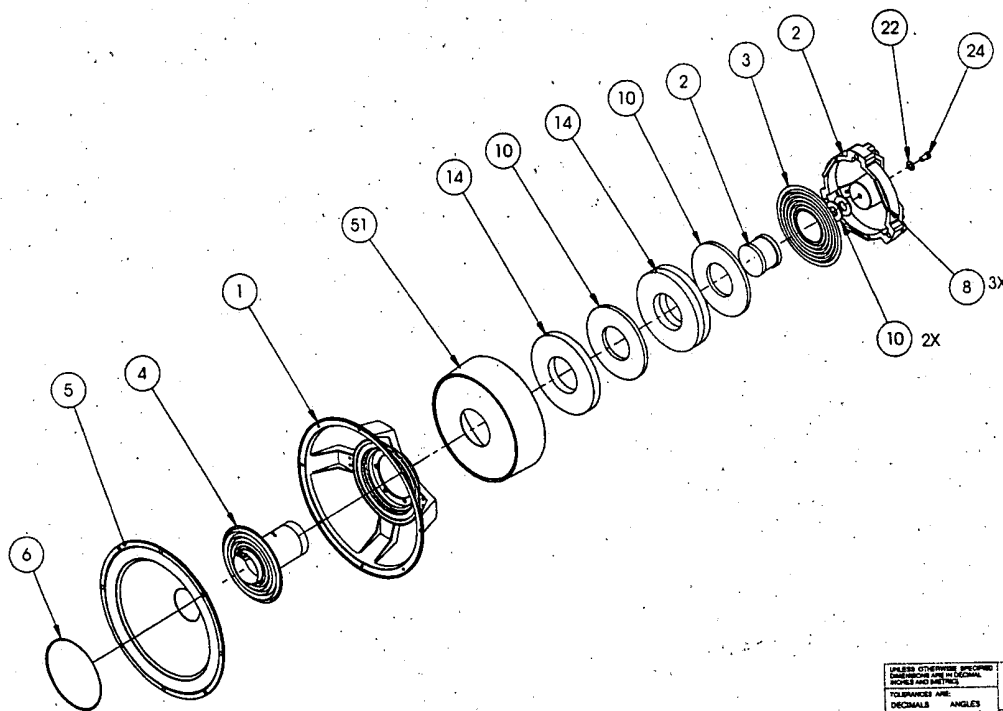
SOLIDWORKS2001+
GENERATED DRAWING.
DO NOT MANUALLY UPDATE B
84-0045-1
B
DO NOT SCALE DRAWING
SCALE
SHEET 2 OF 1

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NOTES: UNLESS OTHERWISE SPECIFIED

1. SEE STANDARD OPERATING PROCEDURES #0061 FOR DETAILED
INFORMATION ON ASSEMBLY PROCESS.

ECN	REV.	DESCRIPTION	APPROVAL	DATE
	A	PRODUCTION RELEASE		



ISOMETRIC VIEW

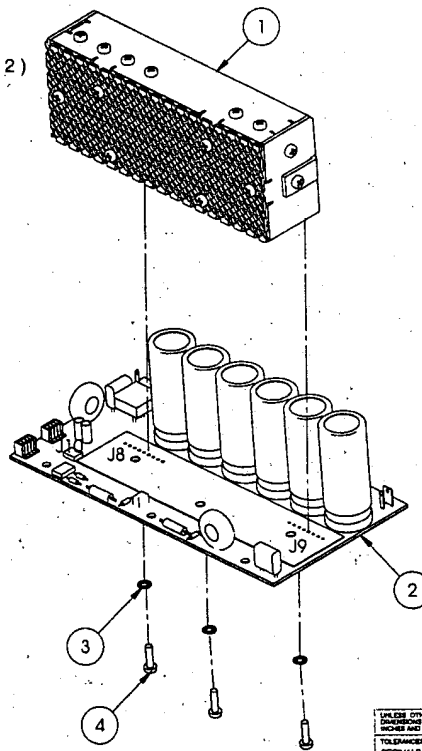
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES AND METRIC		SOLIDWORKS/2005 GENERATED DRAWING DO NOT MANUALLY UPDATE		Velodyne Acoustics, Inc.	
TOLERANCES ARE	ANGLES	APPROVALS	DATE	ASSY, DD-15 SERIES DRIVER	
DECIMALS IN 2.000 IN 2.010	1.05°	DATE	DATE		
SEE NOTES	SEE NOTES	DATE	DATE	ISS/OWN NO B 81-034	REV A
NEXT ASSY	DO NOT SCALE DRAWING	DATE	DATE	SCALE: 1:1	SHEET 1 OF 1

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ECN/REV	DESCRIPTION	APPROVAL	DATE
E1	ENGINEERING RELEASE	WHK	04/16/03

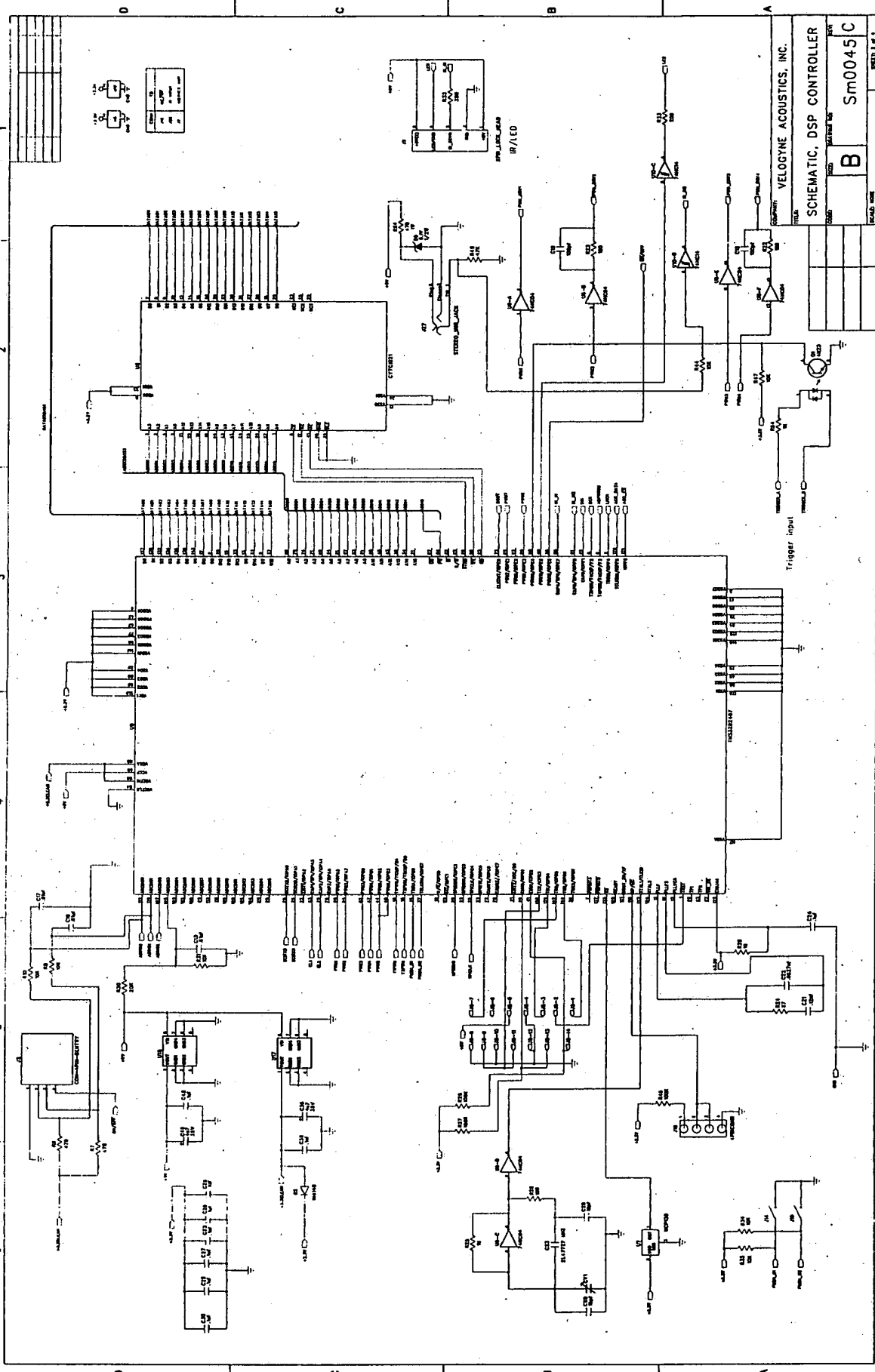
NOTES: UNLESS OTHERWISE SPECIFIED

1. VERIFY VISUALLY THAT THE HEATSHINK COVER (ITEM 1) PINS, TO BE SOLDERED, ARE STRAIGHT PRIOR TO INSERTION ONTO PCBA (ITEM 2).
2. AFTER SECURING HEATSHINK COVER MOD (ITEMS 1) TO PCAB (ITEM 2) APPLY ADEQUATE HEAT TO PINS PRIOR TO SOLDER APPLICATION; THEN CLEAN ALL SOLDERED CONNECTIONS.
3. REF TO SOP 55 FOR ASSEMBLY INSTRUCTION.



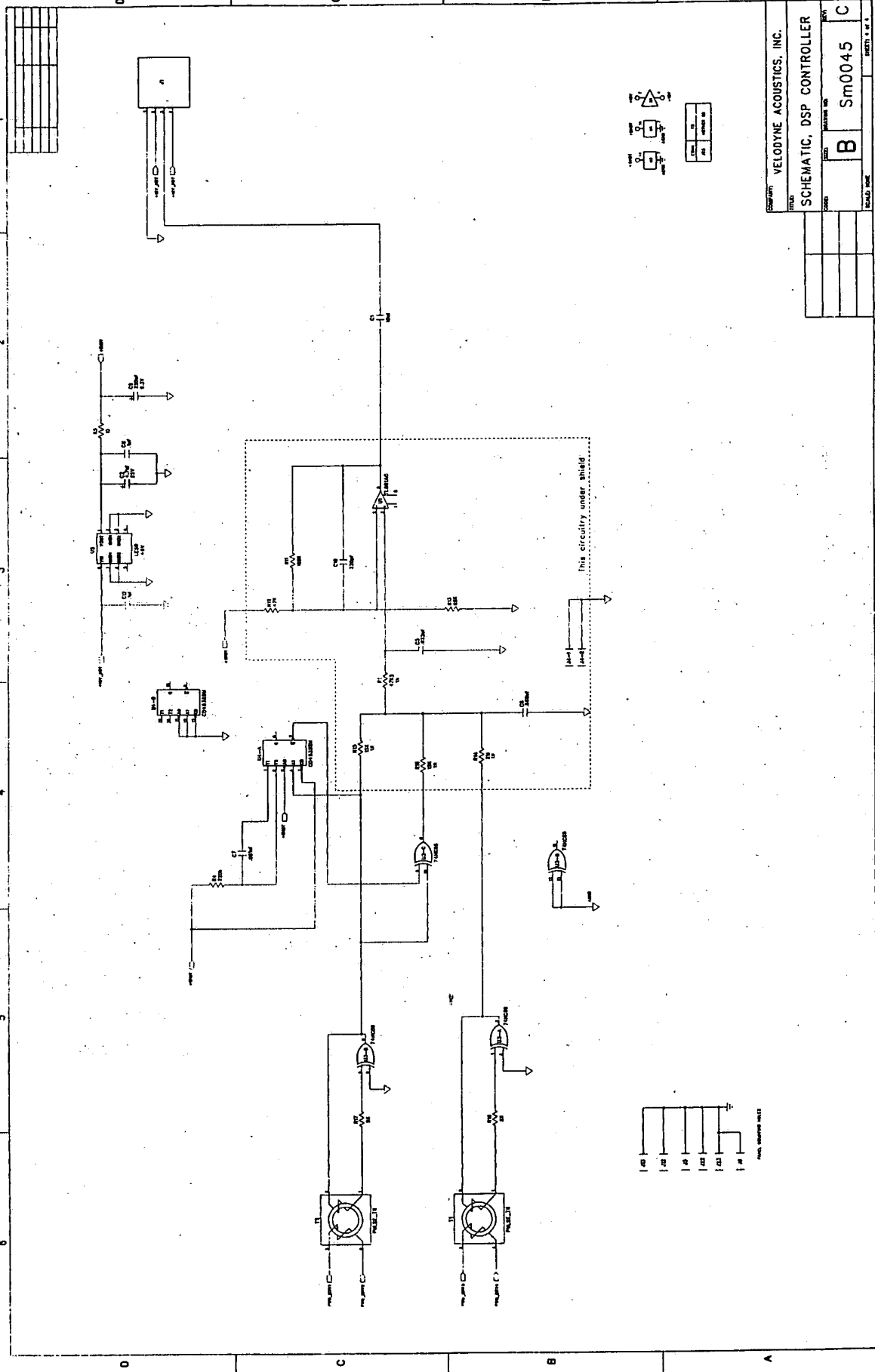
OPTION TABLE	
-1	117V
-2	230V

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN DECIMALS TOLERANCES ARE:		SOLIDWORKS/2000 GENERATED DRAWING DO NOT MANUALLY UPDATE		Velodyne Acoustics, Inc.	
DECIMALS	ANGLES	APPROVAL	DATE	PCBA, 1250W DSP AMPLIFIER 117/230V	
.001 ± .000	± 0.5°	ES	04/16/03		
.002 ± .010		WHK	04/16/03		
NATURAL	SEE NOTES	DATE		SIZE (DWG NO.)	84-0047-X
FINISH	SEE NOTES	BY		SCALE	1:1
NEXT ASSY	DO NOT SCALE DRAWING	CHK	WHK 04/16/03	SHEET NO.	E1

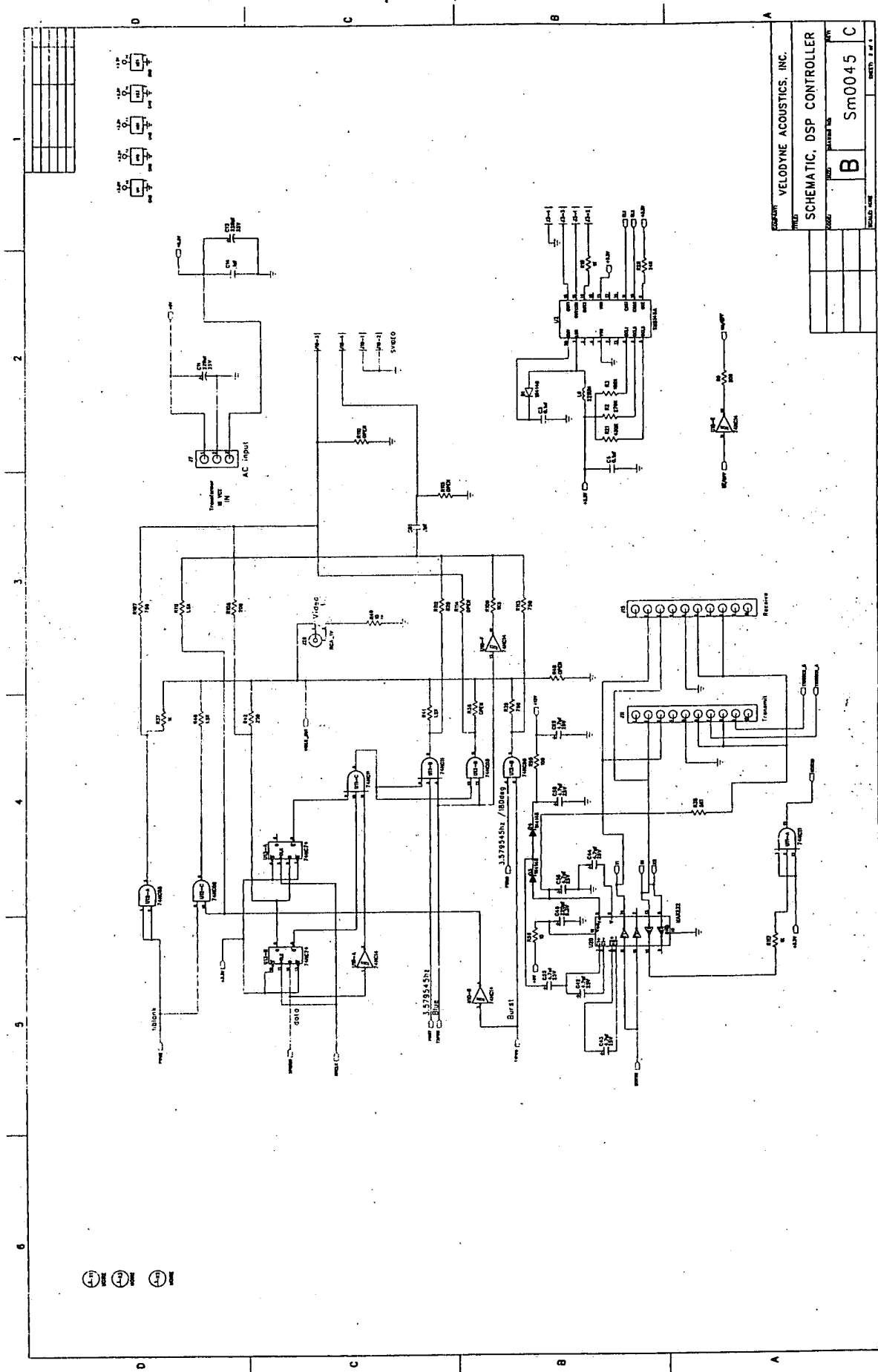


Handwritten notes and signatures at the bottom left of the page.

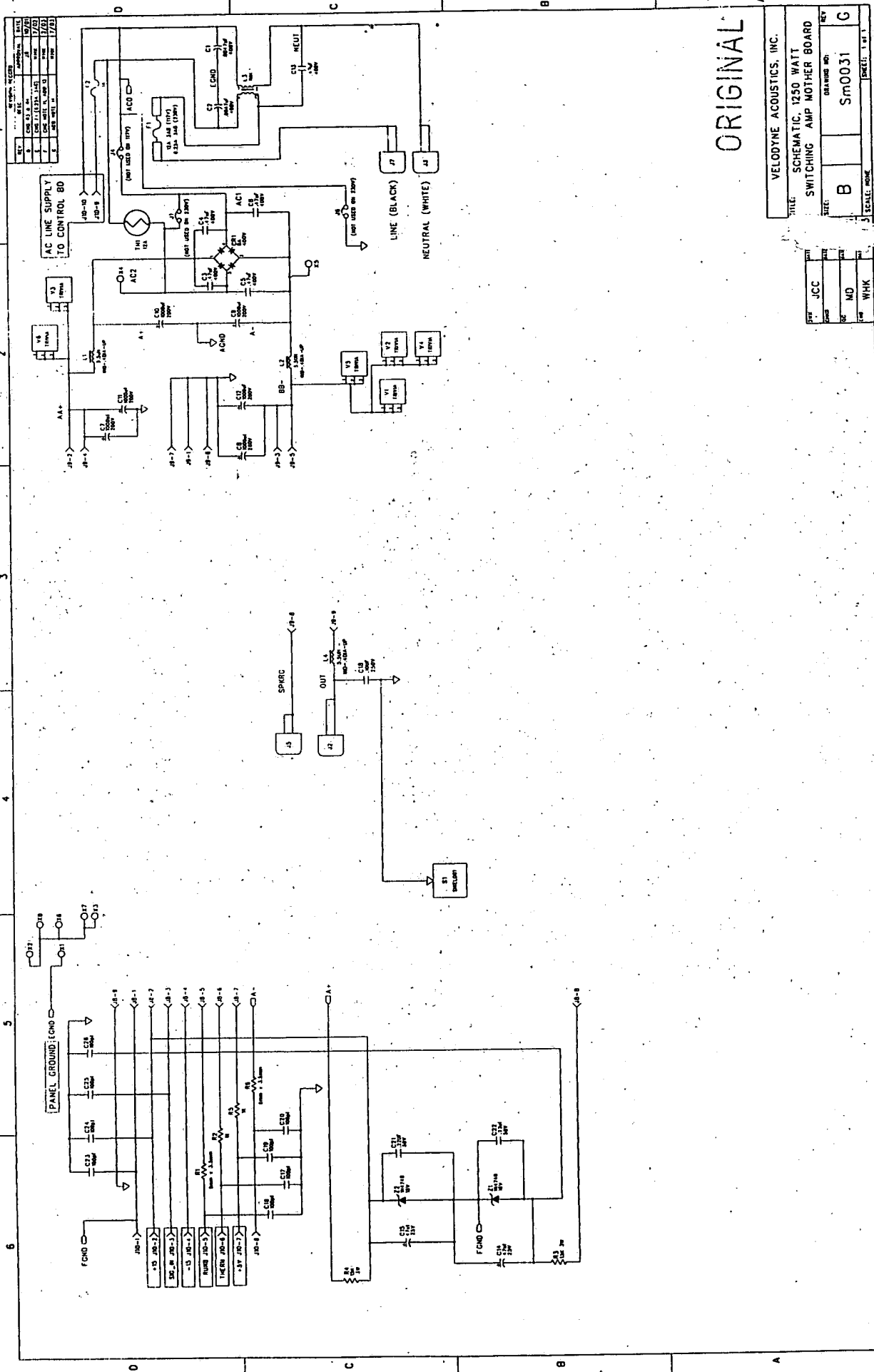
51



VELOCITY		VELOCITY ACoustics, INC.	
TITLE		SCHEMATIC, DSP CONTROLLER	
DATE	REV	DATE	REV
B		Sm0045	
C		SHEET 1 of 1	



VELOCITY ACoustics, INC.	
FILED	DATE
SCHEMATIC, DSP CONTROLLER	
REV	DATE
B	Sm0045
SHEET 1 OF 1	



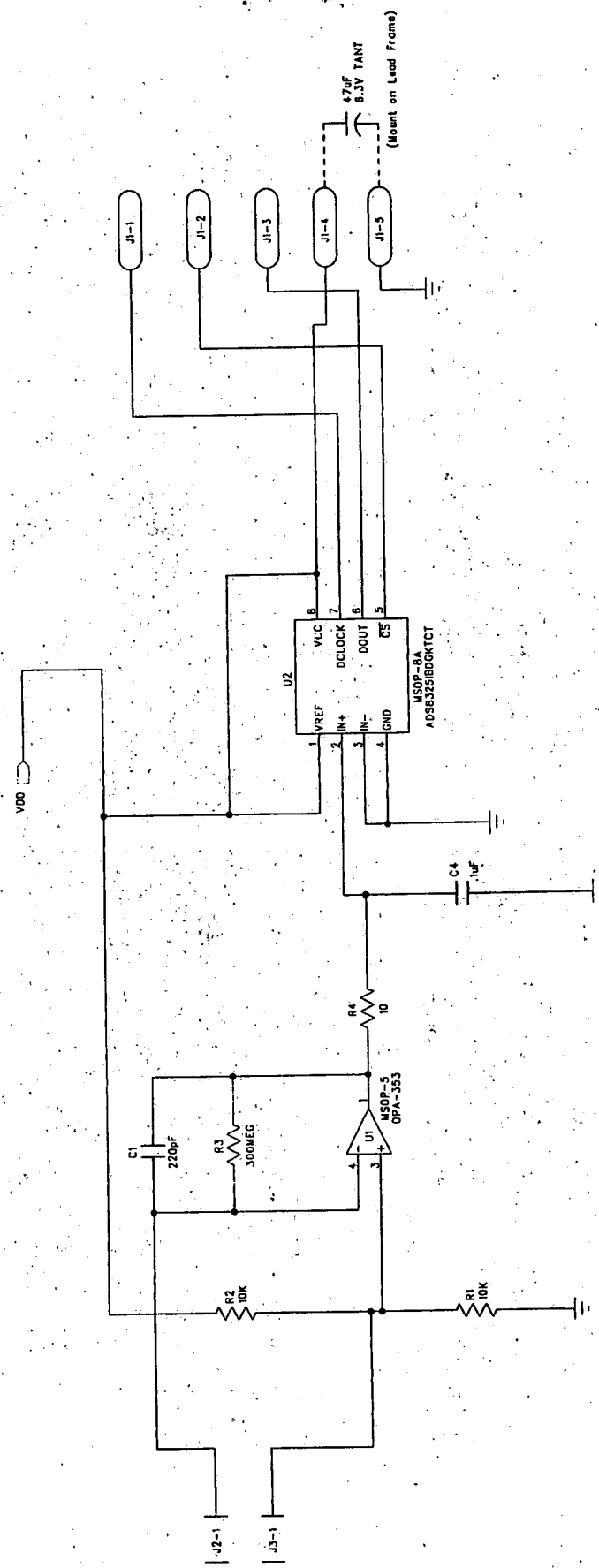
ORIGINAL

VELODYNE ACoustics, INC.	
TITLE	SCHEMATIC, 1250 WATT SWITCHING AMP MOTHER BOARD
DATE	REV
BY	SM0031
CHK	G
APP	SCALE: NONE

REV	JCC
DATE	NOV 1973
BY	MD
CHK	WHK

6 5 4 3 2 1

REVISION RECORD			
REV	DESCRIPTION	APPROVED	DATE
A	PRODUCTION RELEASE	WHK	07/03



ORIGINAL

COMPANY: VELODYNE ACOUSTICS, INC.

TITLE: SCHEMATIC, DIGITAL ACCELEROMETER

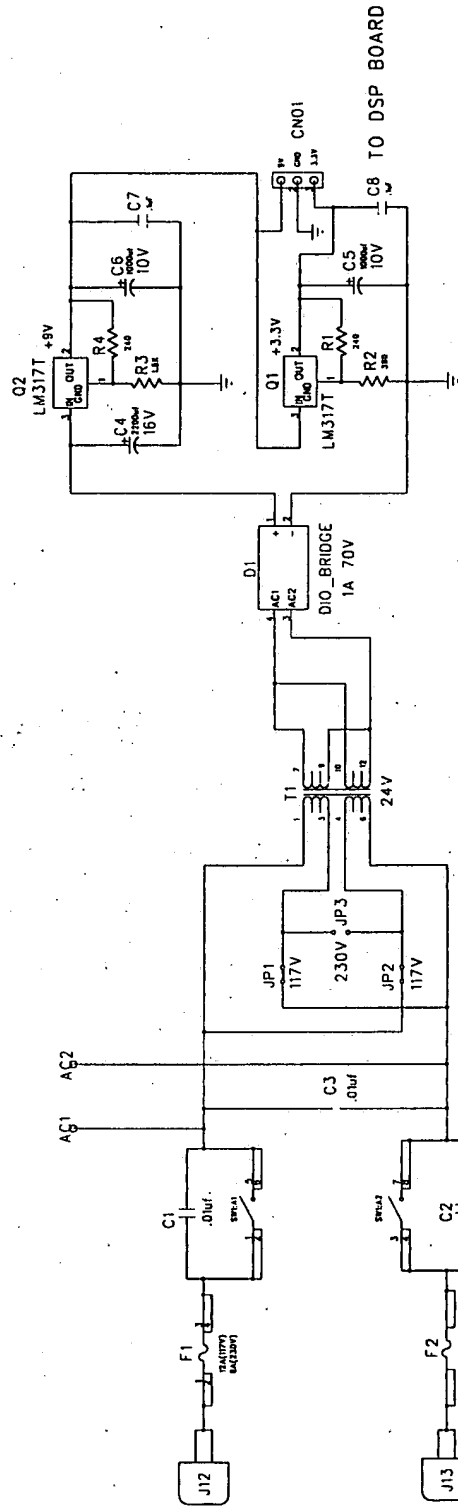
DWN	JCC	DATE	
CHKD		DATE	
QA		DATE	
ENG	WHK	DATE	

SIZE	B	REV	A
DRAWING NO.	Sm0051		

SHEET: 1 of 1

SCALE= NONE

REV	DESCRIPTION	APPROVED	DATE
A	PRODUCTION RELEASE	WHK	8/17/93
B	ADD NOTE 14	WHK	7/21/98



JUMPER TABLE

	JP1	JP2	JP3
117V	X	X	
230V			X

ORIGINAL

COMPANY: VELOCITY ACOUSTICS, INC.	
TITLE: SCHEMATIC, DSP AC POWER BD	
DATE: 8/17/93	REV: B
DESIGNED BY: JCC	CHECKED BY: MD
DRAWN BY: WHK	DATE: 7/21/98
SM-0046	
Page 1 of 1	